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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,490	10/01/2001	Federick H. Rumpf	97116CIP-(36	5371

7590 03/02/2004  
Martha Ann Finnegan  
Cabot Corporation  
157 Concord Road  
Billerica, MA 01821

EXAMINER

HENDRICKSON, STUART L

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 03/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

857 490

Applicant(s)

R. M. P.

Examiner

Herbickson

Group Art Unit

1254

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

### Status

☒ Responsive to communication(s) filed on 11/6/04

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

### Disposition of Claims

- ☒ Claim(s) 1-4 is/are pending in the application.
- Of the above claim(s) 9-14 is/are withdrawn from consideration.
- ☐ Claim(s) 5 is/are allowed.
- ☒ Claim(s) 1-8 is/are rejected.
- ☐ Claim(s) is/are objected to.
- ☒ Claim(s) 1-4 are subject to restriction or election requirement.

### Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
  - ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
  - ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_
  - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

\*Certified copies not received: \_\_\_\_\_

### Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other \_\_\_\_\_

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The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, it is not clear which carbon black is meant for 'said' carbon black.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rothbuhr et al. 4636375.

Rothbuhr teaches in column 8 treating carbon black off-gas to remove water and carbon, then recycling it. While not explicitly teaching heating before recycling, this is suggested in column 9 and thus obvious to increase the carbon yield, and/or efficiency of combustion. The fuel rich mode is suggested as an option in col. 1 and 2.

Claims 1, 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stokes '402, alone or in view of Rothbuhr.

Stokes teaches in columns 2 and 3 removing carbon and water from carbon black off-gas and recycling. The injection of oxygen is taught. This differs only in not teaching heating the dewatered gas. However, this is deemed to be obvious as a measure to maintain the temperature, in view of maintaining a favorable equilibrium in col. 2 line 12 as well as to maintain a hot combustion zone for efficient burning and carbon formation.

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Moreover, Rothbuhr teaches in column 9-10 efficiency gained by preheating the infeeds. Therefore, preheating is an obvious measure to improve economic efficiency. Concerning claim 2, Stokes col. 3 line 50-55 teaches or suggests the fuel rich mode.

Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stokes '402, alone or with Rothbuhr as applied to claims 1, 2 above, and further taken with Sircar and Doshi respectively.

Stokes teaches removal by adsorption in general- it does not specify PSA. However, Sircar teaches in col. 5 line 55 using PSA to dewater a gas. Thus using it in the process of Stokes is an obvious expedient to perform the water removal. Concerning claim 8, Stokes does not identify the source of oxygen, however Doshi teaches in column 11 line 5 that it can separate oxygen by PSA. Thus, using oxygen from any source, such as PSA, is an obvious expedient to create the oxygen used by Stokes.

Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stokes alone or in view of Rothbuhr as applied to claims 1, 2 above, and further in view of Lynum '518.

Stokes/Rothbuhr, supra, does not explicitly teach reheating the recycled gas using plasma heating. However Lynum in column 5 teaches this technique to make carbon black. Plasma preheating the gases of Stokes is thus an obvious expedient to assure efficient combustion and restore heat lost during the water-removal steps.

Applicant's arguments filed 1/16/04 have been fully considered but they are not persuasive.

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The added language does not recite that the present process is fuel rich; a product is not limited by the process by which it was made. Active, positive and direct claim language should be used not only to clarify the claims, but also to properly limit them to what is being argued. Using 60-70% air is fuel rich. The references are deemed to teach or suggest fuel rich processes, assuming for the sake of argument that claim 1 requires a fuel rich process. Sircar is germane to the rejection because it teaches claimed features. If applicants claim PSA processes, then PSA references are analogous. Arguments to supporting references overlook the fact that they are being relied upon for narrow teachings of claimed features.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication should be directed to examiner Hendrickson at telephone number (703) 308-2539.



Stuart Hendrickson  
examiner Art Unit 1754